THC (MARIJUANA)

courtesy of SFC Matus

Terminal Learning Objective (TLO)

- **The use of Marijuana has increased through out the years. It has played a major role since Vietnam in the Military as well as the civilian population. We need to understand the drug and the effects it has on the human body so we can educate our fellow Soldiers and reduce the impact of THC use in the army.**

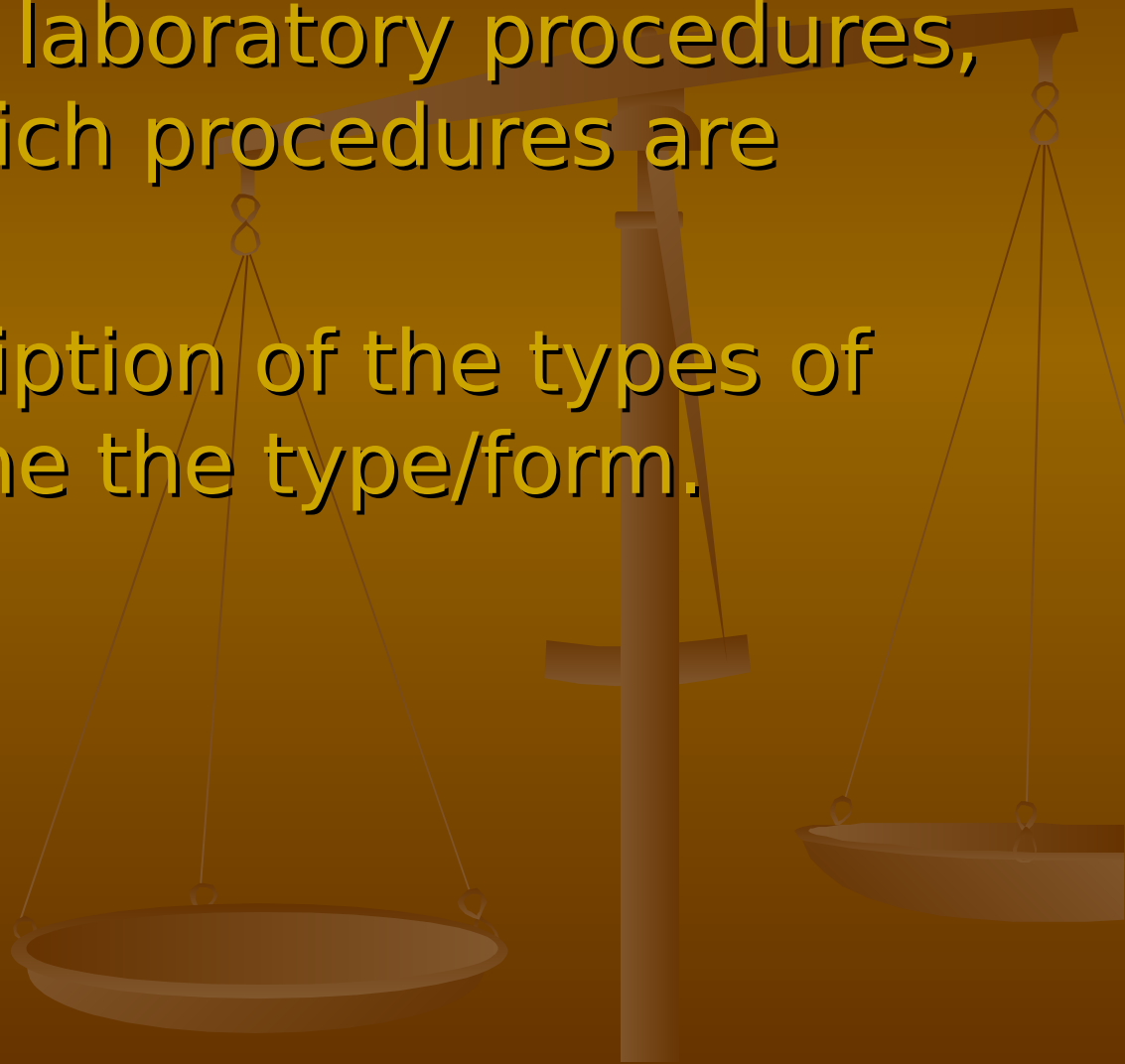
Enabling Learning Objectives (ELO's)

- **Select from a list of signs and symptoms, determine which symptoms relate to THC.**

- **Given a list of active ingredients, determine which one relates to THC**

Enabling Learning Objectives (ELO)

- Given a list of laboratory procedures, determine which procedures are correct.
- Given a description of the types of THC, determine the type/form.



Introduction

- **Marijuana is still the #1 illicit drug of choice in the ARMY**
- **Marijuana is considered to be a gateway drug to other drug use and abuse.**
- **Army Drug Policy – "ZERO TOLERANCE"**
- **ARMY DRUG USE 1998 DOD SURVEY**
  - **9.8 % (7.7% is Marijuana) used in the past 12 months**

Introduction: 1960's – 1970's

- Aftermath of Vietnam
- Drug treatment centers opened.
- A decade of change
- Drug screening labs upgraded to forensic
- Mandatory urinalysis.

Introduction: War on Drugs

- **1980 - 33% of the Military Reported Illicit Drug Use**
- **1981 - U.S.S. NIMITZ Crash of Marine Corps EA-6B**
- **Autopsies of Killed Sailors and Marines Revealed THC in Six Bodies**
- **DOD Declared “War On Drugs.”**

Introduction: Attitudes

- **Shifting attitudes among parents of today's generation who themselves used marijuana in the 60’s -70’s.**

Introduction: Trends

- **More intense patterns of marijuana abuse such as “Blunt” marijuana cigars.**
- **Changes in public perception about marijuana as reflected by open use of the drug in film, media, musical recordings and rock or rap videos.**
- **$$ Marijuana can sell for $600 an ounce, $8,000 a pound, $20 for a blunt cigar.**

Introduction: Trends

- **Pulmonary risks of smoking marijuana are often ignored.**
- **Addiction is associated with alcohol and other drugs – not marijuana.**
- **THC is psychologically addictive - abuse and addiction is frequently denied.**

Pharmacology Of Marijuana

- **Marijuana is a psychoactive or mind altering drug.**
- **Psychoactive drugs can produce a mind state similar to psychosis.**
  - **<u>Psychosis</u> - A major mental disorder in which the personality is very seriously disorganized.**

Pharmacology Of Marijuana

- **Marijuana is the term used in the U.S. to refer to the cannabis plant.**
- **Delta 9 - Tetrahydrocannabinol (THC) is the active ingredient that causes the “high”.**
- **THC is much stronger today than in the 1960’s:**
  - **1% THC content in 1960’s**
  - **3 – 28% today**

Pharmacology Of Marijuana

- **Recent domestic report revealed 29.86% THC content.**
- **Much more dangerous today.**
- **Mixing other drugs with THC by drug dealers and users.**

Pharmacology

- **When smoked, the marijuana is absorbed through the capillaries in the lungs.**

Pharmacology

- When the marijuana is eaten, the chemicals are absorbed into the small intestines.

Cannabis
Marijuana, Hashish, Hash Oil

- ***Both*** MJ and hashish are derived from the plant with the botanical name of Cannabis Sativa.
- The major psychoactive ingredient is delta-9-tetrahydrocannabinol, or THC
- **421** Chemicals in the Cannabis plant

Three Basic Forms

- **Marijuana - Made from the leaves, flowers or stems of the hemp plant.**
- **Hash/Hashish - Concentrated form of marijuana by compressing marijuana resins into small blocks.**
- **Hash Oil – Made by soaking marijuana in a chemical solvent (such as rubbing alcohol) and then evaporating the solvent to obtain an oil concentrate.**

Acute Effects

- Euphoria
- Short Term Memory Loss
- Increased Appetite
- Bloodshot Eyes
- Dry Mouth/Throat
- Sleepiness

- Increased Heart Rate
- Loss of Coordination
- Paranoia
- Hallucinations
- Chronic Panic Attacks
- Psychosis

Acute Effects

- **Marijuana smoke contains more tar and cancer causing substances than tobacco smoke.**
- **Smoking one joint = five cigarettes.**
- **With one puff you inhale 150 cancer - causing substances and twice as much tar as with tobacco.**

Acute Effects

- **Smoking marijuana can cause:**
  - **Bronchitis**
  - **Lung cancer**
  - **Brain damage**
- **Smoking marijuana affects neurotransmitters negatively.**
- **Neurotransmitters send messages throughout the brain for body functions.**
- **Interferes with thinking, ability to focus, memory lapses.**

Effects of Short-Term Use

- Can lead to other Drugs
- Increase heart Rate
- Can Produce Feelings of Relaxation and Heightened Sensitivity
- Impairs Short-Term Memory
- Causes Confusion
- Impairs Ability to Perform Complex Tasks
- Can Result in Feelings of Panic

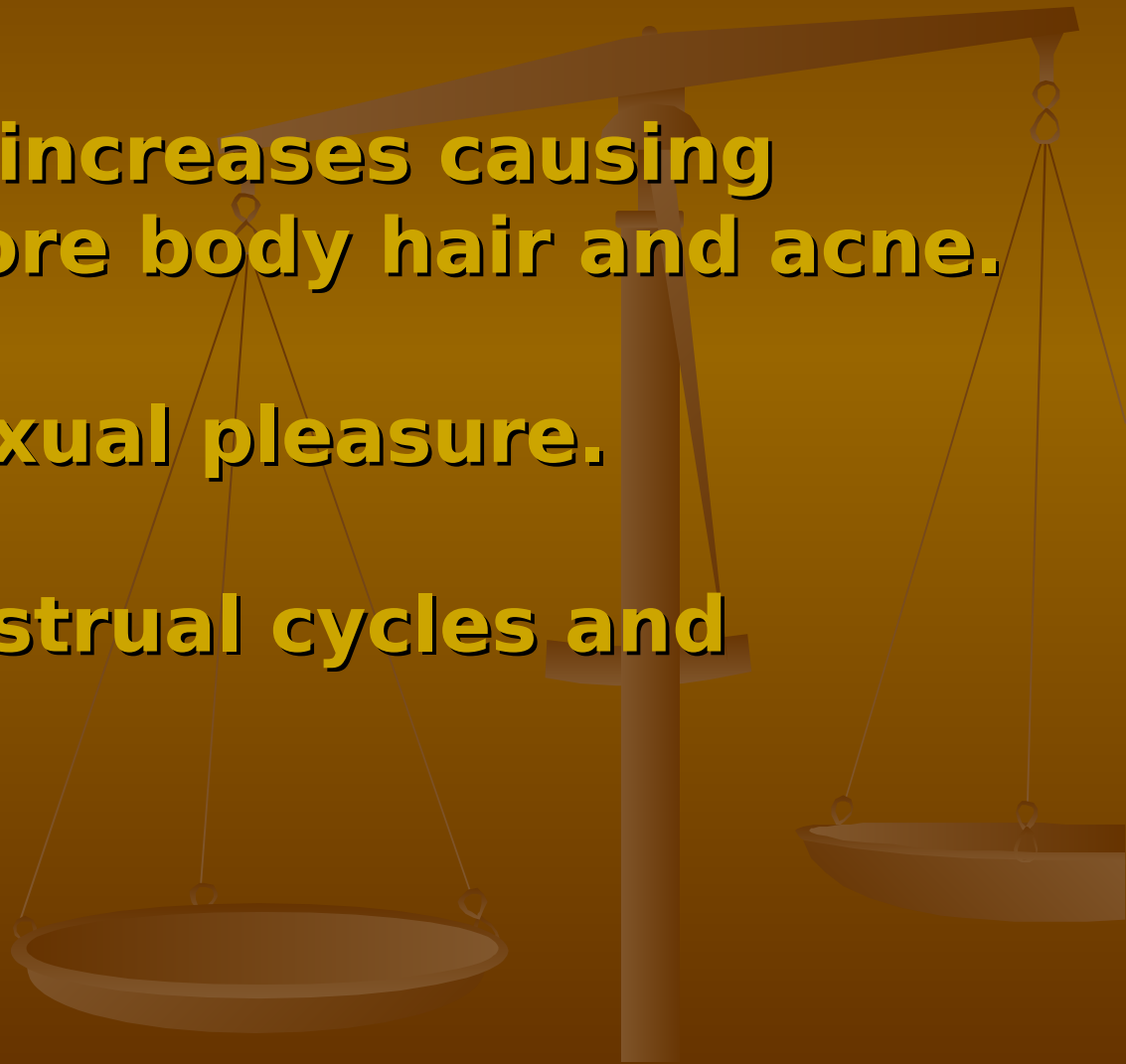
Effects of Prolonged Use

- Can Cause Physical Dependence (Resulting in Irritability, Restlessness, Decreased Appetite, Sleep Disturbance, Sweating, Tremors, Nausea, Vomiting, and Diarrhea)
- Can Cause Psychological Dependence
- Can Impair memory
- Can Cause Cancer

Long Term Effects – Male Specific

- **Reduces male hormone testosterone.**
- **Sex organs do not function properly.**
- **Reduces sperm count in adult males.**
- **Ages 10-20 is when male sex organs are maturing.**
- **Use can cause long-term negative affects on sex organs.**

Long Term Effects – Female Specific



- **Testosterone increases causing facial hair, more body hair and acne.**
- **Decreased sexual pleasure.**
- **Disrupts menstrual cycles and ovulation.**

Hallucinogens

Marijuana

Psilocybin Mushrooms

Payote

Ketamine “Special K”

Cannabis Fact Sheet

- **Marijuana:** Pot, Grass, Weed, Reefer, Dope, MJ, Sinsemilla, Acapulco Gold, Thai Sticks, Blunts.
- **Appearance/Form:** Dried parsley mixed with stems that may include seeds. Tobacco and or Cigar casings.
- **Method of Ingestion:** Can be eaten/ smoked.

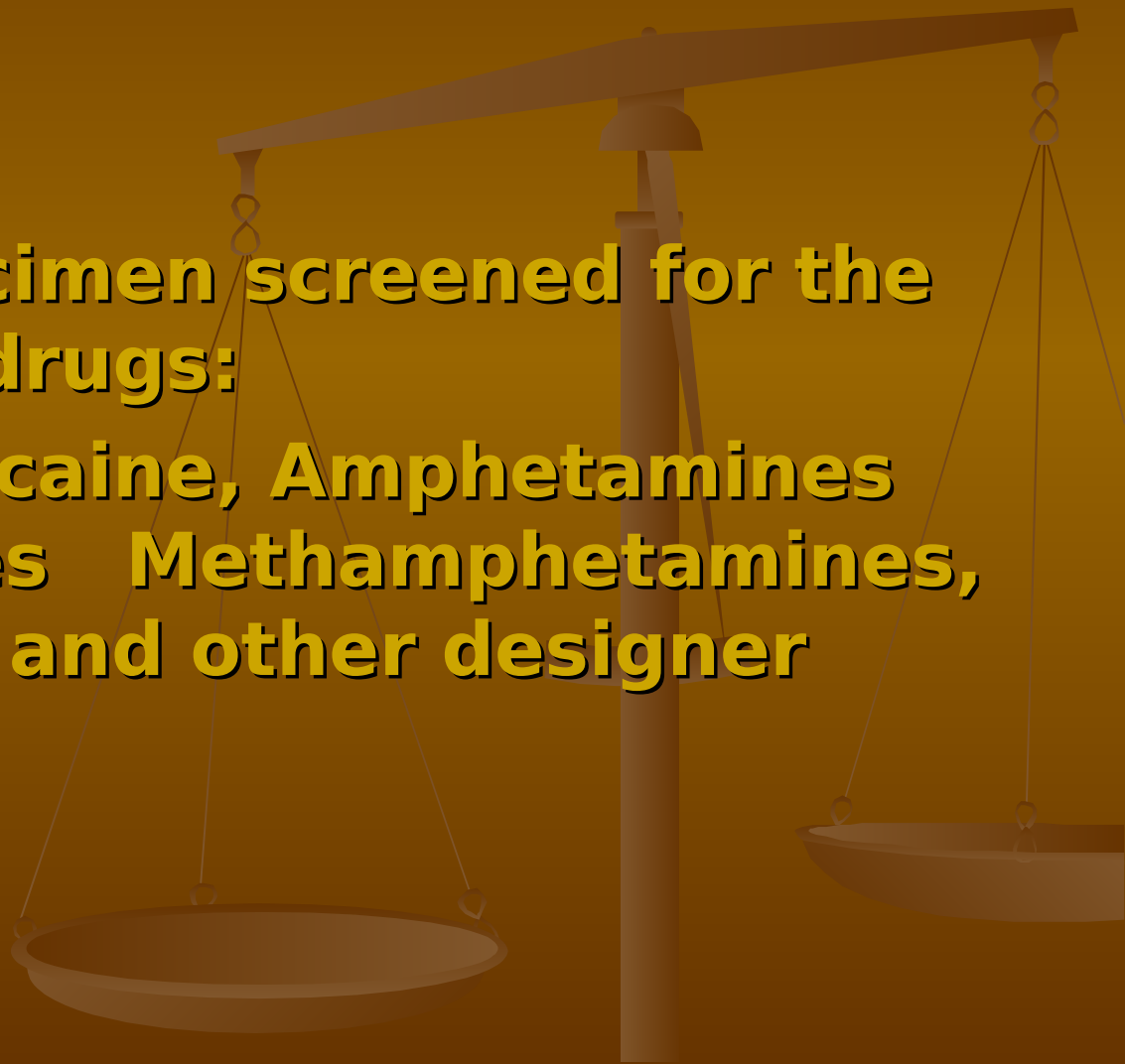
Cannabis Fact Sheet (Cont)

- **Hashish:** Common name Hash, Light to dark brown; waxy hard substance to powder form. Can be eaten or smoked
- **Hash oil:** Common name Oil, Concentrated syrupy liquid varying in color from clear to black. Smoked-mixed with Tobacco or in hash pipe.

“Our First Line of Defense”

The ARMY URINALYS IS PROGRAM

Army Drug Screening Labs



- Every specimen screened for the following drugs:
  - THC, Cocaine, Amphetamines (includes Methamphetamines, Ecstasy and other designer drugs)

Army Drug Lab Procedures

- **All samples are checked**
- **Each drug has a cut-off level established by DOD.**
- **3rd verification check (confirmation) - if positive 1st & 2nd time.**

Army Drug Lab Procedures

- **Positive samples:**
  - **Stored in original bottle and frozen for 1 year**
  - **Can be extended upon request**
  - **Suspected adulteration:**
    - **Message sent to command stating adulteration**
    - **C.O. Can still process or follow-up with another sample**

The Prevention Coordinators can be reached at the following locations:

Darmstadt—348-6750

Heidelberg—370-6069

Landstuhl—486-6121

Mannheim—385-2600

Contact the Alcohol & Drug Control Officer (ADCO) at 373-7475

Questions?

Pop Quiz?

JEOPARDY

History	Effects on the Body	Consumption	Pharmacology/ Forms	Laboratory and Facts
100	100	100	100	100
200	200	200	200	200
300	300	300	300	300
400	400	400	400	400
500	500	500	500	500

1 illicit drug of choice in the Army?

What is marijuana (THC)?

33% drug use in 1980?

What is Military Reported Illicit Drug use?

In 1981 the crash of Marine Corps EA-6B.

What is U.S.S NIMITZ?

Revealed THC in 6 bodies of sailors and marines

What are autopsies?

DOD declared this in 1981.

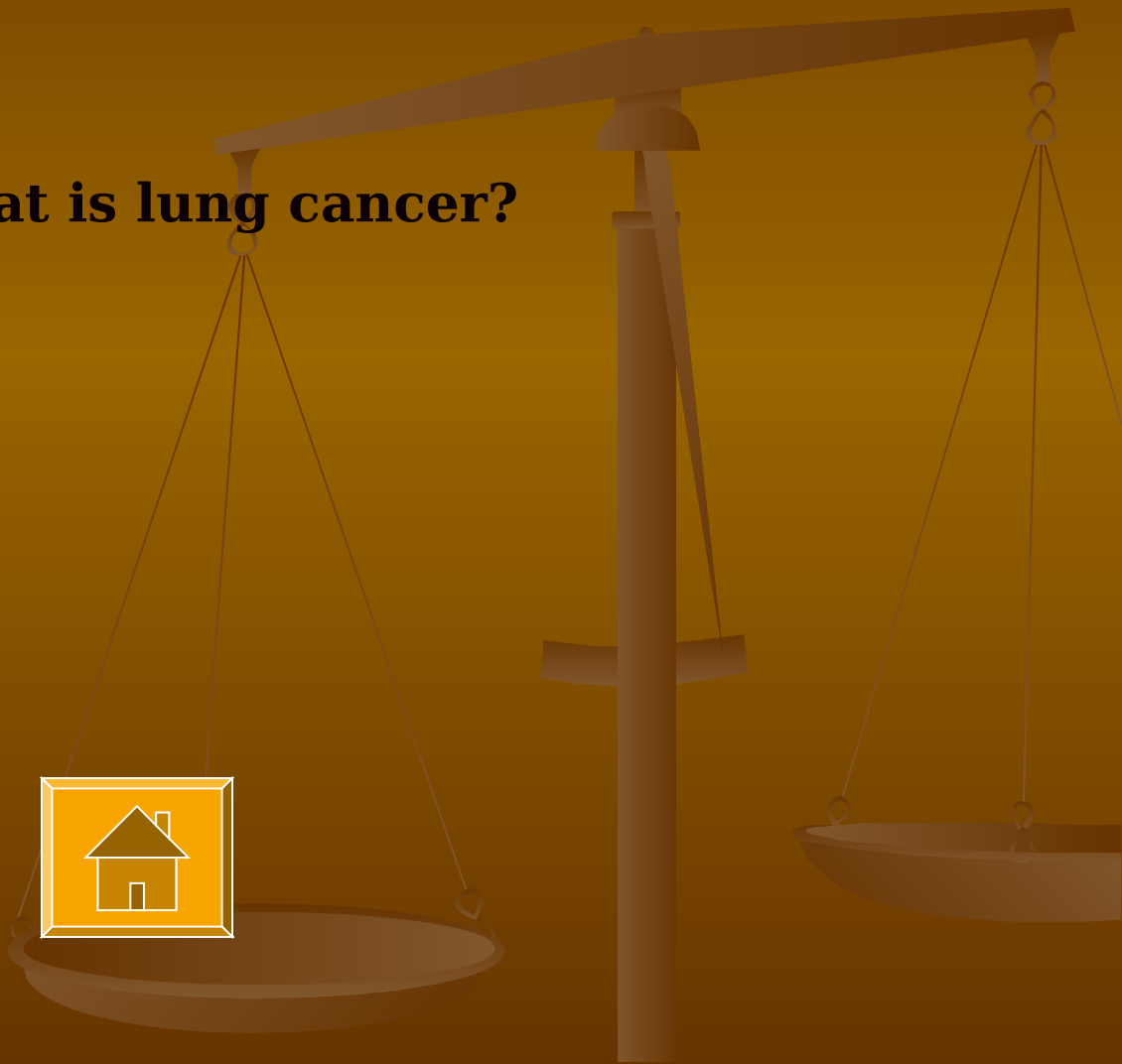
What is the War on Drugs?

Marijuana is a mind altering drug

What is Psychoactive?

1 joint equals 5 cigarettes

What is lung cancer?



Perception of visual, auditory, tactile, olfactory, or gustatory experiences without an external stimulus and with a compelling sense of their reality, usually resulting from a mental disorder or as a response to a drug.

What is hallucinating?

This communication becomes clumped up and inactive. Their purpose is to send messages throughout the brain for bodily functions. There destruction interferes with thinking, ability to focus and memory lapses

What is a neurotransmiiter?

a feeling of happiness, confidence, or well-being sometimes exaggerated in pathological states as mania.

What is Euphoria?

Marijuana is the term used in the U.S. to refer to the?

What is cannabis plant?

Absorbed through the capillaries in the lungs

What is smoking?

the chemicals are absorbed into the small intestines.

What is eating?

What film did this character play in?

What is Star Wars?

$600 an ounce,____a pound and $20.00 a blunt cigarette

What is $8,000 dollars?

Another name for Marijuana?

What is THC or Delta-9?

Active Ingredient

What is Tetrahydrocannibanol?

Made by soaking marijuana in chemical solvent such as rubbing alcohol, then evaporating the solvent to obtain an extremely potent concentrate

What is Hash Oil?

Made by compressing marijuana into resin into blocks

What is hashish?

Chemicals in the cannabis plant

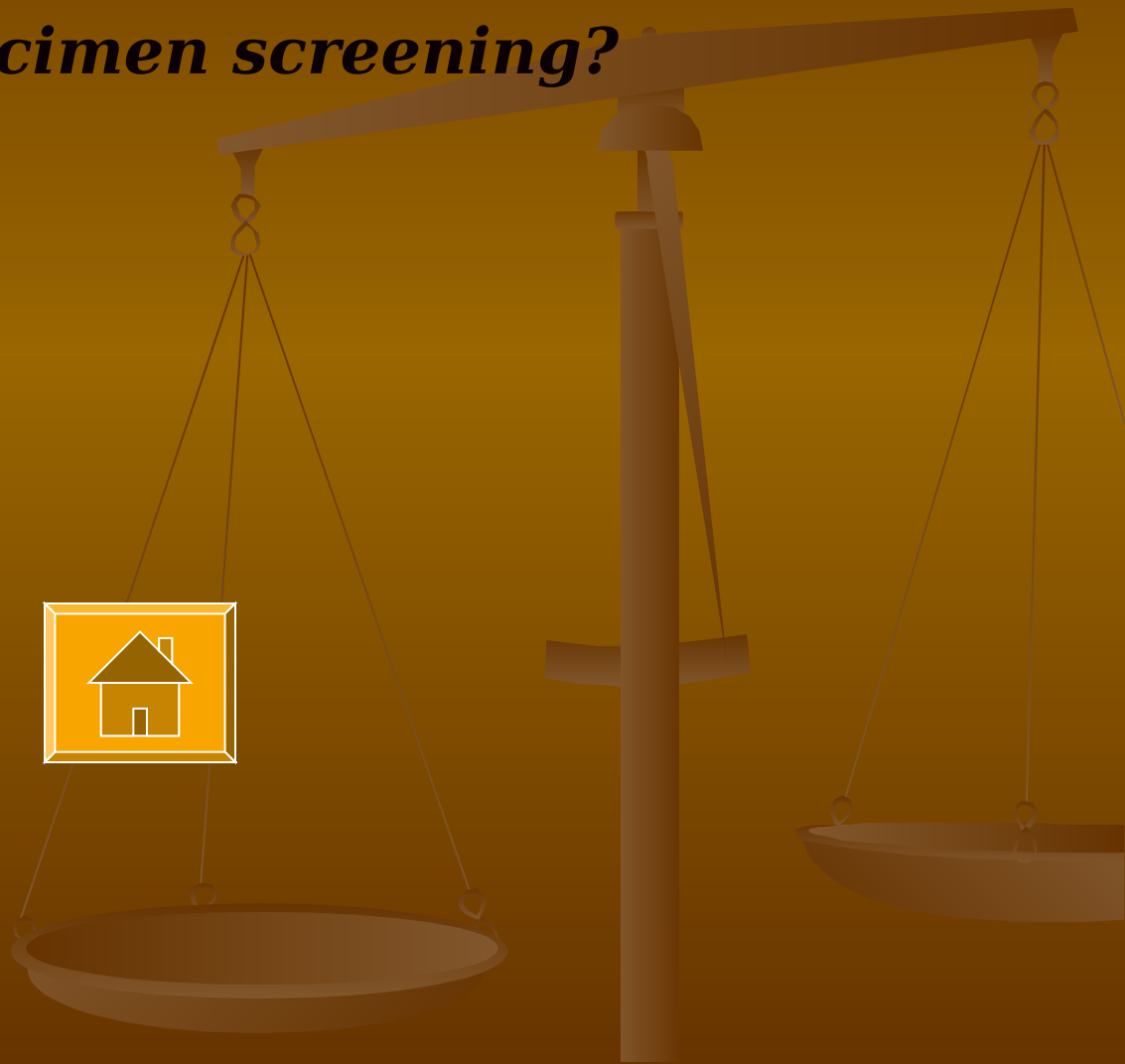
What is 421?

Stored in original bottle and frozen for one year

What is a positive sample?

THC, Cocaine, Amphetamines

What is specimen screening?



Light to dark brown; waxy hard substance powder form

What is hashish?

Concentrated syrup liquid varying in color from clear to black.

What is hash oil?

The Army Urinalysis Program

What is Our First Line of Defense?

Hallucinations: Perception of visual, auditory, tactile, olfactory, or gustatory experiences without an external stimulus and with a compelling sense of their reality, usually resulting from a mental disorder or as a response to a drug.

Paranoia: Psychiatry. a mental disorder characterized by systematized delusions and the projection of personal conflicts, which are ascribed to the supposed hostility of others, sometimes progressing to disturbances of consciousness and aggressive acts believed to be performed in self-defense or as a mission.

Euphoria: a feeling of happiness, confidence, or well-being sometimes exaggerated in pathological states as mania.

Psychosis: a mental disorder characterized by symptoms, such as delusions or hallucinations, that indicate impaired contact with reality.

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